

Conference Abstract

# The Antarctic Biodiversity Portal, an Online Ecosystem for Linking, Integrating and Disseminating Antarctic Biodiversity Information

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## Abstract

The Antarctic Biodiversity portal ([biodiversity.aq](http://biodiversity.aq)) is a gateway to a wide variety of Antarctic biodiversity information and tools. Launched in 2005 as the Scientific Committee on Antarctic Research (SCAR) - Marine Biodiversity Information Network (SCAR-MarBIN, [scar.marbin.be](http://scar.marbin.be)) and the Register of Antarctic Marine Species (RAMS, [marinespecies.org/rams](http://marinespecies.org/rams)), the system has grown in scope from purely marine to include terrestrial information.

Biodiversity.aq is a SCAR product, currently supported by Belspo (Belgian Science Policy) as one of the Belgian contributions to the European Lifewatch-European Research Infrastructure Consortium (Lifewatch-ERIC). The goal of Lifewatch is to provide access to: distributed observatories/sensor networks; interoperable databases, existing (data-) networks, using accepted standards; high performance computing (HPC) and grid power, including the use of the state-of-the-art of cloud and big data paradigm technologies; software and tools for visualization, analysis and modeling.

Here we provide an overview of the most recent advances in the biodiversity.aq online ecosystem, a number of use cases as well as an overview of future directions. Some of the most notable components are:

- The Register of Antarctic Species (RAS, [ras.biodiversity.aq](http://ras.biodiversity.aq)) is a component of the Lifewatch Taxonomic Backbone and provides an authoritative and comprehensive list of names of marine and terrestrial species in Antarctica and the Southern Ocean. It serves as a reference guide for users to interpret taxonomic literature, as valid names and other names in use are both provided.
- Integrated Publishing Toolkit (IPT, [ipt.biodiversity.aq](http://ipt.biodiversity.aq)) allows disseminating Antarctic biodiversity data into global initiatives such as the Ocean Biogeographic Information System (OBIS, [obis.org](http://obis.org)) as Antarctic node of OBIS (Ant-OBIS, also formerly known as SCAR-MarBIN) and the Global Biodiversity Information Facility (GBIF, [gbif.org](http://gbif.org)) as Antarctic Biodiversity Information Facility (AntaBIF). Data that can be made available include metadata, species checklists, species occurrence data and more recently, sampling event-based data. Data from these international portals can be accessed through [data.biodiversity.aq](http://data.biodiversity.aq).

Through SCAR, [Biodiversity.aq](http://Biodiversity.aq) builds on an international network of expert that provide expert knowledge on taxonomy, species distribution, and ecology. It provides a strong and tested platform for sharing, integrating, discovering and analysing Antarctic biodiversity information originating from a variety of sources into a distributed system.

## Keywords

Antarctic, biodiversity, data management

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